

substances. See, for example, the enclosed dictionary definition of the term “mixture” in the “thefreedictionary.com”. Thus, the ordinary definition of a mixture in chemistry refers to a substance or composition consisting of two or more substances mixed together without any chemical bonding therebetween. The Examiner has not provided a contrary definition that would support an interpretation of a single substance.

Furthermore, claim 1 when read as a whole, expressly recites the “mixture” of two compounds, namely, the cis and trans esters where each of the two compounds are present in specified amounts. The trans isomer is defined as being present in a specified amount where that amount is not more than 20 wt%. Claim 1 expressly requires the trans isomer to be present. The wording of the amount of the trans isomer being “no more than 20 wt%” does not entitle the Examiner to disregard the express requirements of the claim. Claim 1 does not encompass a complete absence of the trans isomer as asserted by the Examiner. Otherwise, a “mixture” is no longer present as required by the claims. Applicants are not required to recite a lower limit of a range.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Claim 1 and dependent claims 2 and 4-5 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Claim 1 is rejected as allegedly being indefinite on the basis that it is not clear as to the amounts of “other materials”. Claim 1 does not recite “other materials”. Claim 1 recites a “mixture” of one or more cis isomers and one or more trans isomers and recites the relative amounts of each of these isomers. Applicants are not required to recite an amount of “other materials”. Claim 1 is also rejected as being indefinite on the basis that it is not known whether percentages apply to only the 3,3,5-trimethylcyclohexyl ester

amounts or to the “entire mixture” that comprises the 3,3,5-trimethylcyclohexyl esters. Claim 1 expressly defines the mixture comprising the cis-3,3,5-trimethylcyclohexyl esters and the trans-3,3,5-trimethylcyclohexyl esters “based on the total mass of the mixture”. Thus, claim 1 expressly recites the amounts being based on the total mass of the mixture. The claim language is clear to one of ordinary skill in the art and is not indefinite.

Rejection Under 35 U.S.C. § 102 Over Behura et al.

Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, as being obvious over Behura et al. as evidenced by Chowdhury et al., and further evidenced by McClatchey.

Behura et al. only discloses the cured, dried and ground *C. aromatica* and *C. longa*. Behura et al. further discloses that the *C. aromatica* and *C. longa* are used to cure pimples, whitening of skin and as a blood purifier, but are not used as a condiment due to its bitterness. Behura et al. does not disclose cis-3,3,5-trimethylcyclohexyl esters or trans-3,3,5-trimethylcyclohexyl esters. Thus, claim 1 and the claims depending therefrom are not anticipated by or obvious over Behura et al.

Chowdhury et al. and McClatchey do not establish that the powder of Behura et al. inherently contains a mixture of the claimed cis and trans isomers in the claimed amounts. Chowdhury et al. is cited for allegedly establishing that the powder disclosed in Behura et al. inherently contains the claimed compounds. Initially, it is noted that Chowdhury et al. clearly distinguishes between the red variety and the yellow variety of *C. longa* and the different composition of the two varieties. The yellow variety does not contain cis or trans-3,3,5-trimethylcyclohexyl acetate. Behura et al. does not distinguish between the yellow variety or the

red variety so that it is not possible to establish which compounds are present. Thus, Chowdhury et al. does not establish that the plant material of Behura et al. inherently contains cis or trans-3,3,5-trimethylcyclohexyl acetate.

The rejection appears to be based on the position that the claims only require either one or more cis compound(s) or one or more trans compound(s). For the reasons discussed above, this position is unreasonable, incorrect and unsubstantiated by any evidence. The position that claim 1 does not require the trans-3,3,5-trimethylcyclohexyl ester be present at all misconstrues the ordinary meaning of the term “mixture” and disregards the plain language of claim 1 that expressly recites that the mixture includes the trans-3,3,5-trimethylcyclohexyl ester.

The Action recognizes that Chowdhury et al. discloses the cis-3,3,5-trimethylcyclohexyl acetate in an amount of 0.55% based on the total weight of the plant material but does not disclose or suggest the trans isomer. Claim 1 expressly recites that the mixture comprises at least 80 wt% cis-3,3,5-trimethylcyclohexyl esters based on the total mass of the mixture. The Action provides no rational basis to support the assertion that an amount of 0.55% based on the total weight of the plant material falls within the claimed range of at least 80 wt% based on the total mass of the claimed mixture to establish anticipation or the obviousness of the claimed invention.

Chowdhury et al. only discloses the presence of the cis-3,3,5-trimethylcyclohexyl acetate. There is no mention of the trans-3,3,5-trimethylcyclohexyl acetate being present in any specific amount or being present in trace amounts. One skilled in the art in reviewing Chowdhury et al. would clearly be lead to believe that the yellow variety of *C. longa* contains no cis or trans-3,3,5-trimethylcyclohexyl acetate and that the red variety of *C. longa* contains no trans-3,3,5-trimethylcyclohexyl acetate. The Action provides no evidence that the trans-3,3,5-

trimethylcyclohexyl acetate is present in the essential oil of Chowdhury et al. or the plant material of Behura et al. McClatchey refers only to the *C. longa* rhizomes as a source of medicine. *C. longa* does not disclose any components contained within the *C. longa* rhizome and clearly fails to provide any evidence that *C. longa* inherently contains a mixture of cis and trans-3,3,5-trimethylcyclohexyl acetate within the claimed range.

For the reasons discussed above, the Action fails to provide any factual evidence or rational basis for the position that Behura et al. inherently discloses a mixture of cis and trans-3,3,5-trimethylcyclohexyl esters as recited in claim 1. The Action provides no basis to support the assertion that the claimed mixture of esters in the claimed amounts would have been obvious to one of ordinary skill in the art. Accordingly, claim 1 and the claims depending therefrom are not anticipated by or obvious over Behura et al. either alone or as evidenced by Chowdhury et al. or McClatchey.

Rejection of Claims 1, 2, 4 and 5 Over Eliel et al.

Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Eliel et al. The Action refers to the Smell Database and The Good Scents Company, 116-02-9 product data sheet. Initially, Applicants note that the Smell Database and The Good Scents Company data sheet are not identified on the PTO-892 and do not appear to be of record previously in this application. On page 7, the Action also bases the rejection “as being evidenced by” U.S. Patent Publication No. 2003/0199412. This patent publication is also not listed on the PTO-892 form.

The Action does not address each and every limitation of independent claim 1 and where each and every limitation is disclosed either expressly or inherently in Eliel et al. On page 7, the Action refers only to the cis-3,3,5-trimethylcyclohexyl acetate and asserts that the composition

“inherently” is a mixture even though the Action admits on the record that there is no disclosure in Eliel et al. of trans-3,3,5-trimethylcyclohexyl ester. Thus, the Action draws a conclusion that is not supported by the art of record. Furthermore, the Action does not provide an adequate basis or rationale for the position that Eliel et al. inherently contains a mixture of the cis and trans isomers.

The Action refers to page 2722, first full paragraph of Eliel et al. This passage expressly discloses “cis-3,3,5-trimethylcyclohexyl ethyl ether”. There is no mention of a trans isomer. The Action provides no basis for the position that the specifically disclosed cis compound of Eliel et al. is a mixture.

Eliel et al. clearly fails to disclose either expressly or inherently a mixture comprising a cis-3,3,5-trimethylcyclohexyl ester and a trans-3,3,5-trimethylcyclohexyl ester. Moreover, Eliel et al. expressly teaches producing either the cis compound or the trans compound depending on the starting material. See, for example, page 2722 which expressly discloses that the “trans-3,3,5-trimethylcyclohexyl ethyl ether was synthesized analogously from the trans alcohol”. (Emphasis added.) Thus, Eliel et al. expressly distinguishes between the cis and the trans compounds in order to produce the desired compound, namely the cis compound or the trans compound. Eliel et al. effectively teaches away from a mixture. Based on this disclosure, one skilled in the art would interpret Eliel et al. as using either only the cis-3,3,5-trimethylcyclohexanol to produce the cis-3,3,5-trimethylcyclohexyl ethyl ether or only the trans-3,3,5-trimethylcyclohexanol as the starting material to produce the trans-3,3,5-trimethylcyclohexyl ethyl ether. Nothing in Eliel et al. suggests to one of ordinary skill in the art a mixture of the cis and trans compounds as in the claimed invention.

Eliel et al. also clearly fails to disclose a mixture of the cis and trans compounds in the amounts recited in claim 1. The Action fails to address these claim limitations. Accordingly, claim 1 and the claims depending therefrom are not anticipated by Eliel et al.

Rejection Under 35 U.S.C. § 103 Over Eliel et al.

Claims 7 and 9-11 are rejected under 35 U.S.C. § 103(a) as being obvious over Eliel et al. as allegedly evidenced by the Smell Database and the product data sheet from The Good Scents Company. As noted above, the Smell Database and the data sheet from The Good Scents Company are not identified on the PTO-892 form and do not appear to be of record in this application.

Eliel et al. is directed to a synthesis of alkoxy mercaptans. As noted on page 2720, the compounds noted in the Experimental Section were prepared in conjunction with the study for producing the alkoxy mercaptans. Eliel et al. discloses no utility for the compounds in the Experimental Section or the properties thereof. Eliel et al. clearly does not suggest enhancing a fragrance note of a composition by the addition of a compound to the composition. Eliel et al. further fails to disclose or suggest adding cis-3,3,5-trimethylcyclohexyl ester to a composition in an amount of 0.1 to 90 wt% relative to the total mass of the composition. Nothing in Eliel et al. suggests to one of ordinary skill in the art the claimed method steps.

The Smell Database and the product literature of The Good Scents Company do not “evidence” the obviousness of the claimed invention either alone or in combination with Eliel et al.

Furthermore, the Action refers to the minty note of 3,3,5-trimethylcyclohexanol. This is not the claimed invention. Moreover, the Action provides no basis for the assertion that the ester

produced from the alcohol would be expected to have a different scent. This assertion is based entirely on speculation and is not supported by any evidence of record. It is well established that small changes in the chemical structure of a compound can have dramatic effects on the scent or flavor.

The Action has provided no evidence to support the alleged obviousness of the claimed method of enhancing a fragrance note by adding a cis-3,3,5-trimethylcyclohexyl ester to a composition. Accordingly, claim 7 and the claims depending therefrom are not obvious over Eliel et al.

Rejection Under 35 U.S.C. § 103(a) Over Rohde et al.

Claims 1, 2, 4, 5, 7, 9-11, 13-18 and 24-27 are rejected under 35 U.S.C. § 103(a) as being obvious over WO 01/43784 to Rohde et al.

The Action again relies on the assertion that the claims do not require the trans compound. For the reasons discussed above, this assertion is incorrect and contrary to the express language of claim 1. Claim 1 expressly recites a mixture of the cis and trans isomers and defines the trans isomer being present. Claim 1 further defines the isomer being present in an amount not more than 20 wt%. The trans isomer is not an optional component in claim 1 as apparently suggested by the Examiner.

Rohde et al. discloses various compounds but clearly does not disclose or suggest the claimed mixture of claim 1. Rohde et al. provides no suggestion of a particular ratio of the various isomers or enantiomers. Thus, Rohde et al. does not suggest to one of ordinary skill in the art a mixture of the cis and trans isomers where the cis isomer is present in an amount of at least 80 wt% and the trans isomer is present in an amount of not more than 20 wt%.

Rohde et al. further fails to suggest a method of enhancing a fragrance note of an existing composition by the addition of a cis-3,3,5-trimethylcyclohexyl ester. Rohde et al. refers only to compounds for neutralizing odors. Rohde et al. only discloses introducing the compounds to the material producing the malodor. Rohde et al. clearly fails to suggest enhancing a fragrance note of a composition as in the claimed invention. Rohde et al. further fails to suggest adding a cis-3,3,5-trimethylcyclohexyl ester in an amount of 0.1 to 90 wt% relative to the total mass of the fragrance composition. Accordingly, claim 7 is not obvious over Rohde et al.

Rohde et al. further fails to disclose imparting, modifying or intensifying a fresh and/or fruity scent in a perfume composition or a perfumed product as in claim 10. Nothing in Rohde et al. suggests intensifying a fresh or fruity scent. Rohde et al. only discloses neutralizing a malodor and clearly distinguishes between masking odors and neutralizing the odors.

Rohde et al. also does not suggest enhancing a fragrance note of a composition to impart, modify or intensify a fresh terpene-like, natural, nutty and minty note where the composition includes at least 80 wt% cis-3,3,5-trimethylcyclohexyl ester relative to the total mass of the mixture as in claim 11 or in an amount of 0.1 to 90 wt% as in claims 13-18.

Rohde et al. further fails to disclose a method of enhancing a fragrance note of a composition by adding the cis-3,3,5-trimethylcyclohexyl ester in an amount of at least 80 wt% based on the total weight of the fragrance component and the cis-3,3,5-trimethylcyclohexyl ester as in claim 24 in combination with the features of claim 7. Rohde et al. clearly fails to suggest adding the cis isomer to a fragrance in an amount of at least 80 wt%. Rohde et al. further fails to disclose or suggest the method of claim 7 where the fragrance component is a trans-3,3,5-trimethylcyclohexyl ester. Rohde et al. clearly does not add a cis isomer to a trans isomer as a fragrance component as in claim 25. Rohde et al. also does not disclose or suggest adding the

cis-3,3,5-trimethylcyclohexyl ester in an amount of 0.5 to 20 wt% based on the total weight of the composition as in claim 26, or in an amount of 2 to 10 wt% based on the total weight of the composition as in claim 27, either alone or in combination with the method steps of claim 7.

For the reasons discussed above, the claims are not anticipated by or obvious over the art of record. Accordingly, reconsideration and allowance are requested.

Respectfully submitted,



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Dated: September 20, 2011

thefreedictionary.com

mix·ture (mīks'cher)

n.

1.
 - a. The act or process of mixing: *an alloy made from the mixture of two metals*.
 - b. The condition of being mixed: *the inevitable mixtures of urban neighborhoods*.
2. Something produced by mixing.
3. One that consists of diverse elements: *The day was a mixture of sun and clouds*.
4. A fabric made of different kinds of thread or yarn.
5. *Chemistry* A composition of two or more substances that are not chemically combined with each other and are capable of being separated.

[Middle English, from Old French, from Latin *mixtūra*, from *mixtus*, past participle of *miscēre*, to mix; see *meik-* in Indo-European roots.]

Synonyms: **mixture, blend, amalgam, admixture, compound¹, composite**

These nouns refer to a combination produced by mixing. *Mixture* has the widest application: *She routinely drank a mixture of tea and honey*. "He showed a curious mixture of eagerness and terror" (Francis Parkman).

Blend and *amalgam* imply that the original components have lost their distinctness: *The novel is a fascinating blend of romance and realism*. *The comedian's act was an amalgam of incisive wit and unceasing good humor*.

Admixture suggests that one of the components is dissimilar to the others: *a perfume containing an essential oil with a large admixture of alcohol*.

A compound constitutes a new and independent entity: *The school's program is a compound of scholarship and athleticism*.

A composite has components that may retain part of their identities: *a musical suite that is a composite of operatic themes*.

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mixture ['mīkstʃə]

n.

1. the act of mixing or state of being mixed
2. something mixed; a result of mixing
3. (Chemistry) *Chem* a substance consisting of two or more substances mixed together without any chemical bonding between them
4. (Medicine / Pharmacology) *Pharmacol* a liquid medicine in which an insoluble compound is suspended in the liquid
5. (Music, other) *Music* an organ stop that controls several ranks of pipes sounding the upper notes in a harmonic series
6. (Engineering / Automotive Engineering) the mixture of petrol vapour and air in an internal-combustion engine

[from Latin *mixtūra*, from *mixtus*, past participle of *miscēre* to mix]

Collins English Dictionary – Complete and Unabridged © HarperCollins Publishers 1991, 1994, 1998, 2000, 2003

mixture 4 (mɪks'cher)

A composition of two or more substances that are not chemically combined with each other and are capable of being separated.

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Mixture

(See also AMALGAMATION.)

cabbages and kings Anything and everything; odds and ends; assorted and diverse topics, items, etc. The expression comes from Lewis Carroll's *Through the Looking-Glass* (1871):

"The time has come," the Walrus said,
"To talk of many things:
Of shoes—and ships—and
sealing-wax—
Of cabbages—and kings—
And why the sea is boiling hot—
And whether pigs have wings."

hodgepodge A heterogeneous mixture, a jumble, a farrago, a gallimaufry, a potpourri. This term is a corruption of the earlier *hotchpotch*, which in turn is a corruption of *hotchpot*, from the French *hochepot* (*hocher* 'to shake, to shake together' + *pot* 'pot'), a cookery term for a dish containing a mixture of many ingredients, especially a mutton and vegetable stew. *Hodge-podge* itself was used figuratively as early as the 15th century.

They have made our English tongue a gallimaufry or hodgepodge of all other speeches. (E. K., *Epistle Dedicatory and Glosses to Spenser's Shepherds Calendar*, 1579)

mishmash A jumble, hodgepodge, or potpourri; a confused mess. *Mash* alone means 'confused mixture,' suggesting that *mishmash* may have originated as alliterative wordplay. It has also been suggested that *mishmash* comes from the Danish *mischmasch*. Still current, the term and its variants *mishmosh* and *mishmush* have been in print since the 16th century.

The original *Panorama* had consisted of a mishmash of disconnected and

frequently frivolous items. (*Listener*, October 30, 1975)

potluck Leftovers, odds and ends; potpourri, hodgepodge; an entity of uncertain composition. This expression is derived from, and still most commonly refers to, leftover food that has been placed in a pot, usually over a period of several days, and then served as a meal at a later date. The rationale for *luck* is that one takes his chances, that is, does not know what food to expect, when he is invited to partake of a potluck dinner. By extension, *potluck* can refer to any conglomeration from which a person makes a blind or indiscriminate selection.

[He] took the same kind of pot-luck company in those days when he was not so shy of London. (Madame D'Arblay, *The Early Diary of Frances Burney*, 1775)

threads and thrums Odds and ends, scraps, fragments; a hodgepodge, a mishmash. Thrums are the unwoven portions of warp yarn which remain attached to the loom when the web is cut off, useless fragments of knotted threads.

The confused and ravelled mass of threads and thrums, ycleped Memoires. (Thomas Carlyle, "Diderot," *Miscellaneous Essays*, 1833)

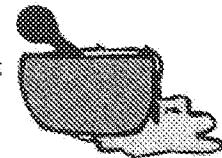
See also **thread** and **thrum**, TOTALITY.

Picturesque Expressions: A Thematic Dictionary, 1st Edition. © 1960 The Gale Group, Inc. All rights reserved.

Thesaurus Legend: |Synonyms|Related Words|Antonyms

Noun 1.

- mixture** - (chemistry) a substance consisting of two or more substances mixed together (not in fixed proportions and not with chemical bonding)
- substance** - the real physical matter of which a person or thing consists; "DNA is the substance of our genes"
- chemical science, chemistry** - the science of matter; the branch of the natural sciences dealing with the composition of substances and their properties and reactions
- alloy, metal** - a mixture containing two or more metallic elements or metallic and nonmetallic elements usually fused together or dissolving into each other when molten; "brass is an alloy of zinc and copper"
- colloid** - a mixture with properties between those of a solution and fine suspension
- composition** - a mixture of ingredients
- mechanical mixture** - a mixture whose components can be separated by mechanical means
- eutectic** - a mixture of substances having a minimum melting point
- solution** - a homogeneous mixture of two or more substances; frequently (but not necessarily) a liquid solution; "he used a solution of peroxide and water"
- suspension** - a mixture in which fine particles are suspended in a fluid where they are supported by buoyancy
- freezing mixture** - a mixture of substances (usually salt and ice) to obtain a temperature below



the freezing point of water

Greek fire - a mixture used by Byzantine Greeks that was often shot at adversaries; catches fire when wetted

gummitite - a gummy orange mixture of uranium oxides and silicates occurring naturally in the hydration and oxidation of pitchblende

lamellar mixture - a mixture in which substances occur in distinct layers

matte - a mixture of sulfides that forms when sulfide metal ores are smelted

oxyacetylene - a mixture of oxygen and acetylene; used to create high temperatures for cutting or welding metals

mineral jelly, petrolatum, petroleum jelly - a semisolid mixture of hydrocarbons obtained from petroleum; used in medicinal ointments and for lubrication

plaster - a mixture of lime or gypsum with sand and water; hardens into a smooth solid; used to cover walls and ceilings

soda lime - a mixture of sodium and calcium hydroxides; absorbs liquids and gases

2. mixture - any foodstuff made by combining different ingredients; "he volunteered to taste her latest concoction"; "he drank a mixture of beer and lemonade"



concoction, intermixture

food product, foodstuff - a substance that can be used or prepared for use as food

mincemeat - spiced mixture of chopped raisins and apples and other ingredients with or without meat

stuffing, dressing - a mixture of seasoned ingredients used to stuff meats and vegetables

roux - a mixture of fat and flour heated and used as a basis for sauces

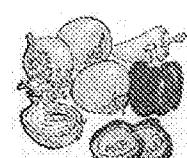
batter - a liquid or semiliquid mixture, as of flour, eggs, and milk, used in cooking

dough - a flour mixture stiff enough to knead or roll

mix, premix - a commercially prepared mixture of dry ingredients

filling - a food mixture used to fill pastry or sandwiches etc.

3. mixture - a collection containing a variety of sorts of things; "a great assortment of cars was on display"; "he had a variety of disorders"; "a veritable smorgasbord of religions"



assortment, miscellanea, miscellany, mixed bag, motley, potpourri, salmagundi, smorgasbord, variety

aggregation, collection, accumulation, assemblage - several things grouped together or considered as a whole

grab bag - an assortment of miscellaneous items

witch's brew, witches' brew, witches' broth - a fearsome mixture; "a witches' brew of gangsters and terrorists"; "mixing dope and alcohol creates a witches' brew"

range - a variety of different things or activities; "he answered a range of questions"; "he was impressed by the range and diversity of the collection"

selection - an assortment of things from which a choice can be made; "the store carried a large selection of shoes"

tarrago, gallimaufry, hodgepodge, hotchpotch, melange, mingle-mangle, mishmash, oddments, odds and ends, omnium-gatherum, ragbag - a motley assortment of things

alphabet soup - a confusing assortment; "Roosevelt created an alphabet soup of federal agencies"

sampler - an assortment of various samples; "a candy sampler"; "a sampler of French poets"

4. mixture - an event that combines things in a mixture; "a gradual mixture of cultures"

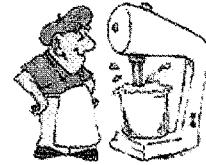
mix

combining, combine - an occurrence that results in things being united

concoction - an occurrence of an unusual mixture; "It suddenly spewed out a thick green concoction"

blend - an occurrence of thorough mixing

5. **mixture** - the act of mixing together; "paste made by a mix of flour and water"; "the mixing of sound channels in the recording studio"
| commixture, mixing, admixture, intermixture, mix
| compounding, combining, combination - the act of combining things to form a new whole



Based on WordNet 3.0, Farlex clipart collection. © 2003-2008 Princeton University, Farlex Inc.

mixture

noun

1. | blend, mix, variety, fusion, assortment, combine, brew, jumble, medley, concoction, amalgam, amalgamation, mixed bag (informal), meld, potpourri, mélange (French), miscellany, conglomeration, hotchpotch, admixture, salmagundi *a mixture of spiced, grilled vegetables*
2. | composite, blend, union, compound, alloy *a mixture of concrete and resin*
3. | cross, combination, blend, association *a mixture between Reggae Bhangra and Soul fusion*
4. | concoction, union, compound, blend, brew, composite, amalgam, conglomeration *Prepare the mixture carefully.*

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Translations

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mixture →

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